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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 May 2008*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-13* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   The amendment submitted on 04/29/08 has been acknowledged. Claims 1-13

are pending.

Response to Arguments

2.   Applicant's arguments filed on 04/29/08 have been fully considered but they are

not persuasive.

Applicant argues that Sugiura, Couwenhoven and Kamoshida in combination or

considered alone fail to teach or disclose "**a printer server that delivers (i) print data**

as data for nozzles in a maximum group in available nozzle groups that are

formed by segmenting, by a non-ejecting nozzle, nozzles of the print head to

which the print data is to be ordinarily delivered, and (ii) NULL data as data for

nozzles in the available nozzle groups other than the maximum group, and as

data for the non-ejection nozzle based upon the non-ejection information

specifying the non-ejection nozzle acquired by the acquisition unit."

With respect to applicant's argument, the Examiner would like to point the

Couwenhoven reference. Couwenhoven *discloses a printer server that delivers (i) print*

data as data for nozzles in a maximum group of available nozzle groups (**column 6,**

lines 43-50; note that the available or active nozzles can be able to print) *that are*

formed by segmenting (**column 6, lines 47-49; note that the nozzles are segmented**

or divided by the malfunctioning nozzle n14), *by the non-ejection nozzles* **(column 6, lines 55-58; note that the nozzles are grouped or segmented since there is a malfunctioning nozzle)**, *nozzles of the print head to which the print data is to be ordinarily delivered* **(column 6, lines 18-22; note that the print head contains malperforming nozzle that is inoperative and is not ejecting ink when commanded)**, *and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle* **(column 10, lines 10-13; note that a zero data gets assigned to the mal-performing or the non-ejecting nozzles)**, *based upon the non-ejection information* specifying the non-ejection nozzle *acquired by said acquisition unit* **(column 6, lines 50-54; note that the active nozzles n2-n14 can be able to proceed with the printing based on the non-ejecting nozzles)**. Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor i.e. processing data for printing. At the time of the invention it would have been obvious to a person of ordinary skilled in the art to have non-ejection nozzle information specifying a non-ejection nozzle of a print head and wherein the server delivers (i) print data as data for nozzles in a maximum group of available nozzle groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print head to which the print data is to be ordinarily delivered and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle based upon the non-ejection information specifying the non-ejection nozzle acquired by said acquisition unit. The suggestion/motivation for doing so would have been in order to effectively compensate inoperative ink nozzle without

substantial loss of density in the set of ink drop states for each image pixel (column 4,

lines 21-24). Therefore, it would have been obvious to combine Sugiura et al. with

Couwenhoven et al. to obtain the invention as specified in the above argument.

Applicant argues that "**nozzle groups**" as stated in the Couwenhoven reference

differs from the intended invention's definition.

With respect to Applicant's argument, in column 6, lines 43-51, Couwenhoven

implies the **"nozzle groups"** being the set of nozzles that are capable or printing along

the same path. Also, The nozzle groups are addressed as the division or segments for

the bottom half of the print head and a corresponding nozzle from the upper half. Thus,

it is clear that the reference describes the same description as the invention.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sugiura et al. (US Publication Number 2002/0080391 A1), Couwenhoven et al. (US

Patent Number 6,354,689 B1), and further in view of Kamoshida et al. (US Patent

Number 6,565,174 B2).

(1) regarding claim 1:

As shown in figures 1-2, Sugiura et al. discloses a print control apparatus (**242,**

figure 2) which can be connected to a server (**23, figure 2, paragraph [0015], lines 1-**

3) that generates print data on the basis of printer information and information to be

printed (**paragraph [0014], lines 2-8**), comprising:

an acquisition unit for acquiring printer information (**231, figure 2**) from a printer

(**2P, figure 2**) connected to said apparatus (**paragraph [0022], lines 2-12; note that**

the control apparatus manages printer information acquired from the print server

managing a printer);

a transmission unit for transmitting information required to specify the information

to be printed (**paragraph [0021], lines 1-12**), and the printer information to the server

(**paragraph [0014], lines 9-10**);

a reception unit for receiving print data from the server as a response

(**paragraph [0015], lines 5-6**); and

a print control unit for controlling the printer to print the print data (**paragraph**

[0015], lines 1-3);

Sugiura et al. discloses all of the subject matter as described as above except for

specifically teaching non-ejection nozzle information *specifying* a non-ejection nozzle of

a print head and wherein *the server delivers (i) print data as data for nozzles in a*

maximum group of available nozzle groups, that are formed by segmenting, by the non-

ejection nozzles, nozzles of the print head to which the print data is to be ordinarily

delivered and (ii) NULL data as data for nozzles in the available nozzle groups other

than the maximum group, and as data for the non-ejection nozzle based upon the non-

ejection information *specifying the non-ejection nozzle* acquired by said acquisition unit.

However, Couwenhoven et al. disclose non-ejection nozzle information

specifying a non-ejection nozzle of a print head (**column 3, lines 50-58; note that**

malfunctioning or non-ejecting nozzles get specified) *wherein the server delivers (i)*

print data as data for nozzles in a maximum group of available nozzle groups (**column**

6, lines 43-50; note that the available or active nozzles can be able to print) *that*

are formed by segmenting (**column 6, lines 47-49; note that the nozzles are**

segmented or divided by the malfunctioning nozzle n14), *by the non-ejection*

*nozzles (***column 6, lines 55-58; note that the nozzles are grouped or segmented**

since there is a malfunctioning nozzle), *nozzles of the print head to which the print*

data is to be ordinarily delivered (**column 6, lines 18-22; note that the print head**

contains malperforming nozzle that is inoperative and is not ejecting ink when

commanded), *and (ii) NULL data as data for nozzles in the available nozzle groups*

other than the maximum group, and as data for the non-ejection nozzle (**column 10,**

lines 10-13; note that a zero data gets assigned to the mal-performing or the non-

ejecting nozzles), based upon the non-ejection information *specifying the non-ejection*

nozzle acquired by said acquisition unit (**column 6, lines 50-54; note that the active**

nozzles n2-n14 can be able to proceed with the printing based on the non-ejecting

nozzles), and

Sugiura et al. and Couwenhoven et al. are combinable because they are from the

same field of endeavor i.e. processing data for printing. At the time of the invention it

would have been obvious to a person of ordinary skilled in the art to have non-ejection

nozzle information specifying a non-ejection nozzle of a print head and wherein the

server delivers (i) print data as data for nozzles in a maximum group of available nozzle

groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print

head to which the print data is to be ordinarily delivered and (ii) NULL data as data for

nozzles in the available nozzle groups other than the maximum group, and as data for

the non-ejection nozzle based upon the non-ejection information specifying the non-

ejection nozzle acquired by said acquisition unit. The suggestion/motivation for doing so

would have been in order to effectively compensate inoperative ink nozzle without

substantial loss of density in the set of ink drop states for each image pixel (column 4,

lines 21-24). Therefore, it would have been obvious to combine Sugiura et al. with

Couwenhoven et al. to obtain the invention as specified in claim 1.

Sugiura et al. and Couwenhoven et al. disclose all of the subject matter as

described as above except for specifically teaching *wherein the server gives a notice to*

the printer of reducing a feed amount by the number of unused nozzles preparatory to

transmission of the print data.

However, Kamoshida et al. teach *wherein the server gives a notice to the printer*

of reducing a feed amount by the number of unused nozzles preparatory to

transmission of the print data (**figure 5, column 10, lines 51-61; note that the sheet-feed amount is reduced from the predetermined sheet-feed amount by the distance equivalent to the differences between the unused nozzle**).

Sugiura et al., Couwenhoven et al. and Kamoshida et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art wherein the server gives a notice to the printer of reducing a feed amount by the number of unused nozzles preparatory to transmission of the print data. The suggestion/motivation for doing so would have been in order to save paper and acquire a better control of the apparatus (column 2, lines 13-15). Therefore, it would have been obvious to combine Sugiura et al., Couwenhoven et al. with Kamoshida et al. to obtain the invention as specified in claim 1.

(2) regarding claim 2:

Sugiura et al. further discloses, the apparatus according to claim 1, wherein the server generates the print data for performing printing (**paragraph [0021], lines 7-12**).

Sugiura et al. disclose all of the subject matter as described as above except for specifically teaching using a nozzle group having a greater number of nozzles among a first nozzle group (**column 3, lines 58-59; note that there are two groups of nozzle groups also refer to figure 3**) and a second nozzle group separated by the non-ejection nozzle in the print head based upon the non-ejection nozzle information

acquired by said acquisition unit (**column 3, lines 54-56; note that the two groups of nozzles are separated by the malfunctioned nozzle**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skilled in the art to have using a nozzle group having a greater number of nozzles among a first nozzle group and a second nozzle group separated by the non-ejection nozzle in the print head based upon the non-ejection nozzle information acquired by said acquisition unit. The suggestion/motivation for doing so would have been in order to elongate the lifetime of the print head so that the printing cost is reduced (column 4, lines 29-31). Therefore, it would have been obvious to combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 2.

(3) regarding claim 3:

Sugiura et al. further disclose, the apparatus according to claim 1, further comprising a display which is connected to a computer network (**23L, figure 2; paragraph [0014], lines 1-4**), and displays data provided by a server connected to the computer network (**paragraph [0022], lines 1-5**), and wherein a location of the information to be printed is transmitted to the server via a window which is displayed on said display and is provided by the server (**paragraph [0022], lines 6-12; paragraph [0066], lines 1-6**).

(4) regarding claim 4:

Sugiura et al. further disclose, the apparatus according to claim 3, wherein a print mode of the printer is input via the window (**WN4 figure 6, paragraph 87, lines 1-3**) which is displayed on said display (**33b, figure 1; paragraph [0087], lines 4-6), and the print mode is transmitted to the server together with the printer information (paragraph [0081], lines 1-5**).

(5) regarding claim 5:

Sugiura et al. disclose all of the subject matter as described as above except for teaching, wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles.

However, Couwenhoven et al. disclose wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles (**column 10, lines 9-13; note that the nozzles with the highest malperformance value is assigned to a zero**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skilled in the art wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles. The suggestion/motivation for doing so would have been in order to effectively compensate inoperative ink nozzle without substantial loss of density in the set of ink drop states for each image pixel (column 4, lines 21-29). Therefore, it would have been obvious to

combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 5.

(6) regarding claim 6:

Sugiura et al. disclose a print control apparatus of claim 1 (**242, figure 2**); and a printer (**2P, figure 2**).

Sugiura et al. disclose all of the subject matter as described as above except for teaching, a server for generating print data for performing printing without using a non-ejection nozzle on the basis of printer data and information to be printed.

However, Couwenhoven et al. disclose a server for generating print data for performing printing without using a non-ejection nozzle on the basis of data and information to be printed (**column 9, lines 18-25; note that the better performing nozzles will be used to produce more important states without using the non-ejection nozzles**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skilled in the art a server for generating print data for performing printing without using a non-ejection nozzle on the basis of data and information to be printed. The suggestion/motivation for doing so would have been in order to elongate the lifetime of the print head so that the printing cost is reduced (column 4, lines 29-31). Therefore, it would have been obvious to combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 6.

(7) regarding claim 7:

Sugiura et al. further disclose, a print control method using a server (**23, figure 2; paragraph [0015], lines 1-3**) that generates print data on the basis of printer information and information to be printer (**paragraph [0014], lines 2-8**), comprising:

an acquisition step of acquiring printer information (**paragraph [0014], lines 4-6**) from a connected printer (**paragraph [0022], lines 1-8**);

a transmission step of transmitting information required to specify the information to be printed (**paragraph [0021], lines 1-12**), and the printer information to the server (**paragraph [0014], lines 9-10**);

a reception step of receiving print data from the server as a response (**paragraph [0015], lines 5-6**); and

a printer control step of controlling the printer to print the print data (**paragraph [0047], lines 1-7**);

Sugiura et al. discloses all of the subject matter as described as above except for specifically teaching non-ejection nozzle information *specifying* a non-ejection nozzle of a print head and wherein *the server delivers (i) print data as data for nozzles in a maximum group of available nozzle groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print head to which the print data is to be ordinarily delivered and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle based upon the non-ejection information specifying the non-ejection nozzle* acquired by said acquisition unit.

However, Couwenhoven et al. disclose non-ejection nozzle information

specifying a non-ejection nozzle of a print head (**column 3, lines 50-58; note that**

malfunctioning or non-ejecting nozzles get specified) *wherein the server delivers (i)*

print data as data for nozzles in a maximum group of available nozzle groups (**column**

6, lines 43-50; note that the available or active nozzles can be able to print) *that*

are formed by segmenting (**column 6, lines 47-49; note that the nozzles are**

segmented or divided by the malfunctioning nozzle n14), *by the non-ejection*

nozzles (**column 6, lines 55-58; note that the nozzles are grouped or segmented**

since there is a malfunctioning nozzle), *nozzles of the print head to which the print*

data is to be ordinarily delivered (**column 6, lines 18-22; note that the print head**

contains malperforming nozzle that is inoperative and is not ejecting ink when

commanded), *and (ii) NULL data as data for nozzles in the available nozzle groups*

other than the maximum group, and as data for the non-ejection nozzle (**column 10,**

lines 10-13; note that a zero data gets assigned to the mal-performing or the non-

ejecting nozzles), *based upon the non-ejection information* specifying the non-ejection

nozzle acquired by said acquisition unit (**column 6, lines 50-54; note that the active**

nozzles n2-n14 can be able to proceed with the printing based on the non-ejecting

nozzles), and

Sugiura et al. and Couwenhoven et al. are combinable because they are from the

same field of endeavor i.e. processing data for printing. At the time of the invention it

would have been obvious to a person of ordinary skilled in the art to have non-ejection

nozzle information specifying a non-ejection nozzle of a print head and wherein the

server delivers (i) print data as data for nozzles in a maximum group of available nozzle

groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print

head to which the print data is to be ordinarily delivered and (ii) NULL data as data for

nozzles in the available nozzle groups other than the maximum group, and as data for

the non-ejection nozzle based upon the non-ejection information specifying the non-

ejection nozzle acquired by said acquisition unit. The suggestion/motivation for doing so

would have been in order to effectively compensate inoperative ink nozzle without

substantial loss of density in the set of ink drop states for each image pixel (column 4,

lines 21-24). Therefore, it would have been obvious to combine Sugiura et al. with

Couwenhoven et al. to obtain the invention as specified in claim 7.

Sugiura et al. and Couwenhoven et al. disclose all of the subject matter as

described as above except for specifically teaching *wherein the server gives a notice to*

the printer of reducing a feed amount by the number of unused nozzles preparatory to

transmission of the print data.

However, Kamoshida et al. teach *wherein the server gives a notice to the printer*

of reducing a feed amount by the number of unused nozzles preparatory to

transmission of the print data (**figure 5, column 10, lines 51-61; note that the sheet-**

feed amount is reduced from the predetermined sheet-feed amount by the

distance equivalent to the differences between the unused nozzle).

Sugiura et al., Couwenhoven et al. and Kamoshida et al. are combinable

because they are from the same field of endeavor. At the time of the invention, it would

have been obvious to a person of ordinary skilled in the art wherein the server gives a

notice to the printer of reducing a feed amount by the number of unused nozzles preparatory to transmission of the print data. The suggestion/motivation for doing so would have been in order to save paper and acquire a better control of the apparatus (column 2, lines 13-15). Therefore, it would have been obvious to combine Sugiura et al., Couwenhoven et al. with Kamoshida et al. to obtain the invention as specified in claim 7.

(8) regarding claim 8:

Sugiura et al. further disclose, a computer-executable program product embodied in a computer-readable storage medium, comprising:

a code of an acquisition step of acquiring printer information (**paragraph [0014], lines 4-6**) form a connected printer (**paragraph [0022], lines 1-8**);

a code of transmission step of transmitting information required to specify the information to be printer (**paragraph [0021], lines 1-12**), and the printer information to the server (**paragraph [0014], lines 9-10**);

a code of reception step of receiving print data from the server as a response (**paragraph [0015], lines 5-6**); and

a code of a print control step of controlling the printer to print the print data (**paragraph [0047], lines 1-7**);

Sugiura et al. discloses all of the subject matter as described as above except for specifically teaching non-ejection nozzle information *specifying* a non-ejection nozzle of a print head and wherein *the server delivers (i) print data as data for nozzles in a*

maximum group of available nozzle groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print head to which the print data is to be ordinarily delivered and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle based upon the non-ejection information *specifying the non-ejection nozzle* acquired by said acquisition unit.

However, Couwenhoven et al. disclose non-ejection nozzle information *specifying* a non-ejection nozzle of a print head (**column 3, lines 50-58; note that malfunctioning or non-ejecting nozzles get specified**) *wherein the server delivers (i) print data as data for nozzles in a maximum group of available nozzle groups* (**column 6, lines 43-50; note that the available or active nozzles can be able to print**) *that are formed by segmenting* (**column 6, lines 47-49; note that the nozzles are segmented or divided by the malfunctioning nozzle n14**), *by the non-ejection nozzles* (**column 6, lines 55-58; note that the nozzles are grouped or segmented since there is a malfunctioning nozzle**), *nozzles of the print head to which the print data is to be ordinarily delivered* (**column 6, lines 18-22; note that the print head contains malperforming nozzle that is inoperative and is not ejecting ink when commanded**), *and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle* (**column 10, lines 10-13; note that a zero data gets assigned to the mal-performing or the non-ejecting nozzles**), *based upon the non-ejection information specifying the non-ejection nozzle* acquired by said acquisition unit (**column 6, lines 50-54; note that the active**

nozzles n2-n14 can be able to proceed with the printing based on the non-ejecting nozzles), and

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor i.e. processing data for printing. At the time of the invention it would have been obvious to a person of ordinary skilled in the art to have non-ejection nozzle information specifying a non-ejection nozzle of a print head and wherein the server delivers (i) print data as data for nozzles in a maximum group of available nozzle groups, that are formed by segmenting, by the non-ejection nozzles, nozzles of the print head to which the print data is to be ordinarily delivered and (ii) NULL data as data for nozzles in the available nozzle groups other than the maximum group, and as data for the non-ejection nozzle based upon the non-ejection information specifying the non-ejection nozzle acquired by said acquisition unit. The suggestion/motivation for doing so would have been in order to effectively compensate inoperative ink nozzle without substantial loss of density in the set of ink drop states for each image pixel (column 4, lines 21-24). Therefore, it would have been obvious to combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 8.

Sugiura et al. and Couwenhoven et al. disclose all of the subject matter as described as above except for specifically teaching *wherein the server gives a notice to the printer of reducing a feed amount by the number of unused nozzles preparatory to transmission of the print data.*

However, Kamoshida et al. teach *wherein the server gives a notice to the printer of reducing a feed amount by the number of unused nozzles preparatory to*

transmission of the print data (**figure 5, column 10, lines 51-61; note that the sheet-feed amount is reduced from the predetermined sheet-feed amount by the distance equivalent to the differences between the unused nozzle**).

Sugiura et al., Couwenhoven et al. and Kamoshida et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art wherein the server gives a notice to the printer of reducing a feed amount by the number of unused nozzles preparatory to transmission of the print data. The suggestion/motivation for doing so would have been in order to save paper and acquire a better control of the apparatus (column 2, lines 13-15). Therefore, it would have been obvious to combine Sugiura et al., Couwenhoven et al. with Kamoshida et al. to obtain the invention as specified in claim 8.

(9) regarding claim 9:

Sugiura et al. further discloses, the computer-executable program product embodied in a computer-readable storage medium according to claim 8, wherein the server generates the print data for performing printing (paragraph [0021], lines 7-12).

Sugiura et al. disclose all of the subject matter as described as above except for specifically teaching using a nozzle group having a greater number of nozzles among a first nozzle group (**column 3, lines 58-59; note that there are two groups of nozzle groups also refer to figure 3**) and a second nozzle group separated by the non-ejection nozzle in the print head based upon the non-ejection nozzle information

acquired by said acquisition unit (**column 3, lines 54-56; note that the two groups of nozzles are separated by the malfunctioned nozzle**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skilled in the art to have using a nozzle group having a greater number of nozzles among a first nozzle group and a second nozzle group separated by the non-ejection nozzle in the print head based upon the non-ejection nozzle information acquired by said acquisition unit. The suggestion/motivation for doing so would have been in order to elongate the lifetime of the print head so that the printing cost is reduced (column 4, lines 29-31). Therefore, it would have been obvious to combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 9.

(10) regarding claim 10:

Sugiura et al. further disclose, the computer-executable program product embodied in a computer-readable storage medium according to claim 8, wherein a location of the information to be printer is transmitted to the server via a window which is displayed on a display for displaying data provided by the server (**paragraph [0022], lines 6-12**) connected to a computer network and is provided by the server (**paragraph [0024], lines 1-5**).

(11) regarding claim 11:

Sugiura et al. further disclose, the computer-executable program product embodied in a computer-readable storage medium according to claim 10, a print mode of the printer is input via the window (**WN4 figure 6, paragraph [0087], lines 1-2**) which is displayed on the display (**33b figure, paragraph [0087], lines 4-6**), and the printer mode is transmitted to the server together with the printer information (**paragraph [0081], lines 1-5**).

(12) regarding claim 12:

Sugiura et al. disclose all of the subject matter as described as above except for teaching, wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles.

However, Couwenhoven et al. disclose wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles (**column 10, lines 9-13; note that the nozzles with the highest malperformance value is assigned to a zero**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skilled in the art wherein the server generates the print data so as to transmit null data to a nozzle group having a smaller number of nozzles. The suggestion/motivation for doing so would have been in order to effectively compensate inoperative ink nozzle without substantial loss of density in the set of ink drop states for each image pixel (column 4, lines 21-29). Therefore, it would have been obvious to

combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in

claim 12.

(13) regarding claim 13:

Sugiura et al. discloses all of the subject matter as described as above except for

specifically teaching a notifying unit for notifying a printer that a unit paper feed amount

is to be shortened by lines corresponding in number to a nozzle group having the

smaller number of nozzles among the first nozzle group and the second nozzle group

which are separated by the non-ejection nozzle, based upon the non-ejected nozzle

information acquired by said acquisition unit.

However, Couwenhoven et al. teaches a notifying unit for notifying a printer that

a unit paper feed amount is to be shortened by lines corresponding in number to a

nozzle group having the smaller number of nozzles among the first nozzle group and

the second nozzle group which are separated by the non-ejection nozzle (**column 5,**

line 63-column 6, lines 3; note that the group of nozzles compensate for the

malperforming nozzle and the second group of nozzles print along the same row

of image pixels; also, the receiver medium is advanced in a perpendicular

direction by a distance equal to half of the print head height), based upon the non-

ejection nozzle information acquired by said acquisition unit (**column 3, lines 54-67**).

Sugiura et al. and Couwenhoven et al. are combinable because they are from the

same field of endeavor. At the time of the invention it would have been obvious to a

person of ordinary skilled in the art to have a notifying unit for notifying a printer that a

unit paper feed amount is to be shortened by lines corresponding in number to a nozzle group having the smaller number of nozzles among the first nozzle group and the second nozzle group which are separated by the non-ejection nozzle, based upon the non-ejected nozzle information by said acquisition unit. The suggestion/motivation for doing so would have been in order to effectively compensate inoperative ink nozzle without substantial loss of density in the set of ink drop states for each image pixel (column 4, lines 21-24). Therefore, it would have been obvious to combine Sugiura et al. with Couwenhoven et al. to obtain the invention as specified in claim 13.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6.   Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore could be reached at (571) 272- 7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pari-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hilina S Kassa/

Examiner, Art Unit 2625

July 16, 2008

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625